UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,903	08/28/2001	Peter Kamvysselis	EMS-02001	5153

26339 7590 11/13/2006

MUIRHEAD AND SATURNELLI, LLC
200 FRIBERG PARKWAY, SUITE 1001
WESTBOROUGH, MA 01581

EXAMINER	
SHINGLES, KRISTIE D	

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,903	KAMVYSSELIS, PETER	
	Examiner	Art Unit	
	Kristie Shingles	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-35,37-39,55-57,59-61 and 63-91* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-35,37-39,55-57,59-61 and 63-91* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 33-35, 37-39, 55-57, 59-61 and 63-91 are pending.

Response to Amendment

No claims have been amended. Claims 1-32, 36, 40-54, 58 and 62 are cancelled.

Response to Arguments

Applicant's arguments, see Remarks pages 13-17, filed 7/31/2006, with respect to the rejection(s) of claims 3, 55, 63, 72 and 81 under 35 U.S.C. 103(a) over *Achiwa et al* (US 6,643,750) in view of *Williams et al* (US 6,721,286) and *Tan et al* (US 6,625,621) have been fully considered and are persuasive. Therefore, finality of the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of *Satake et al* (US 5,784,373) and *Ruutu et al* (US 2003/0149715).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 33, 37, 55, 59, 63, 64, 68, 72, 73, 77, 81, 82, 86, 90 and 91** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Satake et al* (US 5,784,373) in view of *Williams et al* (US 6,721,286) and *Ruutu et al* (2003/0149715).

a. **Per claims 33, 55, 63, 72 and 81**, *Satake et al* teach a method of transferring data from a first storage device to a second storage device, comprising;

- synchronously transferring the data from the first storage device to a first buffer device (Abstract, col.1 line 53-col.2 line 10, col.4 lines 22-35, col.10 lines 12-33—transferring data from storage to receiving buffer synchronously);
- asynchronously transferring the data from the first buffer device to a second buffer device (Abstract, col.5 lines 18-24, col.9 lines 36-42—transferring data from receiving buffer to transmitting buffer); and
- synchronously transferring the data from the second buffer device to the second storage device (Abstract, col.9 line 57-col.10 line 11, col.11 lines 27-42—transferring data from transmitting buffer to second storage device).

Yet *Satake et al* fail to explicitly teach providing the data from the first buffer device to the second buffer device using a network, wherein the data is provided from the first storage device in a first format and is provided to the network in a second network that is different from the first format. However *Williams et al* teach the data is provided from the source in a first format and is provided to the network in a second format and is received by the destination in a third format, wherein the second format is different from at least one of: the first format and the second format (col.1 lines 45-55, col.5 lines 26-66 and col.8 lines 12-42).

Satake et al and *Williams et al* fail to explicitly teach wherein the first buffer device acknowledges successful transfer of the data to the first storage device prior to the first buffer device completing transfer of the data to the second device. However, *Ruutu et al* disclose transmitting an early acknowledgement before completely transmitting the data to the second device (page 2 paragraphs 0014-0015, page 4 paragraph 0050, page 5-6 paragraph 0065). It

would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Satake et al* and *Williams et al* with *Ruutu et al* for the purpose of permitting an acknowledgment message to be sent before all of the data have been transmitted to the network; because it would provide a quicker response time in anticipation of all the data being transferred to the network—especially for large time-consuming packets. Furthermore it is obvious to provide data in various formats, in order to service transferred data in formats consistent with the devices receiving the data.

b. **Per claim 37,** *Satake et al* and *Williams et al* with *Ruutu et al* teach the method of claim 33, *Williams et al* further teach wherein the second storage device receives the data in a first format different from a second format used to transmit the data over the network (col.1 lines 45-55, col.5 lines 26-66 and col.8 lines 12-42).

c. **Claims 59, 64, 68, 73, 77, 82 and 86** are substantially similar to claim 37 and are therefore rejected under the same basis.

d. **Per claim 90,** *Satake et al* and *Williams et al* with *Ruutu et al* teach the method of claim 33, *Ruutu et al* further teach wherein the first buffer device acknowledges successful transfer of the data to the first storage device prior to all of the data being provided to the network (page 2 paragraphs 0014-0015, page 5-6 paragraph 0065).

e. **Claim 91** is substantially similar to claim 90 and is therefore rejected under the same basis.

3. **Claims 34, 35, 38, 39, 56, 57, 60, 61, 65-67, 69-71, 74-76, 78-80, 83-85 and 87-89** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Satake et al* (US 5,784,373) in view of *Williams et al* (US 6,721,286) and *Ruutu et al* (2003/0149715) in further view of *Applicant's Admitted Prior Art* (hereafter referred to as *AAPA*).

a. **Per claim 34**, *Satake et al* and *Williams et al* with *Ruutu et al* teach the method of claim 33 as applied above, yet fail to distinctly teach the first format being RDF format. However, in *AAPA* discloses use of the RDF format when transmitting data from a storage device to a host (page 2 line 4-page 3 line 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Satake et al* and *Williams et al* with *Ruutu et al* with *AAPA* for the purpose of employing communication with remote data facilities (RDF); because it would permit connecting and communication among storage devices in order to implement a redundant data mirroring system.

b. **Claims 38, 56, 60, 65, 69, 74, 78, 83 and 87** are substantially similar to claim 34 and are therefore rejected under the same basis.

c. **Per claim 35,** *Satake et al* and *Williams et al* with *Ruutu et al* with *AAPA* teach the method of claim 34 as applied above, *Williams et al* further teach the method wherein the second format is one of TCP/IP and UDP (col.11 lines 6-17, col.12 lines 41-55, col.13 line 55-col.14 line 59 and col.16 lines 2-12 and col.18 lines 17-24).

d. **Claims 39, 57, 61, 66, 67, 70, 71, 75, 76, 79, 80, 84, 85, 88 and 89** are substantially similar to claim 35 and are therefore rejected under the same basis.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Peters et al (6,415,373), Bourekas et al (5,649,232), Sudarshan et al (2002/0004850), Hodges et al (6,157,962), Tam (6,622,172), Bortfeld et al (6,567,735), Franke et al (6,542,513), Robles et al (6,359,882 and 6,282,172), Jackson et al (6,536,000).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER